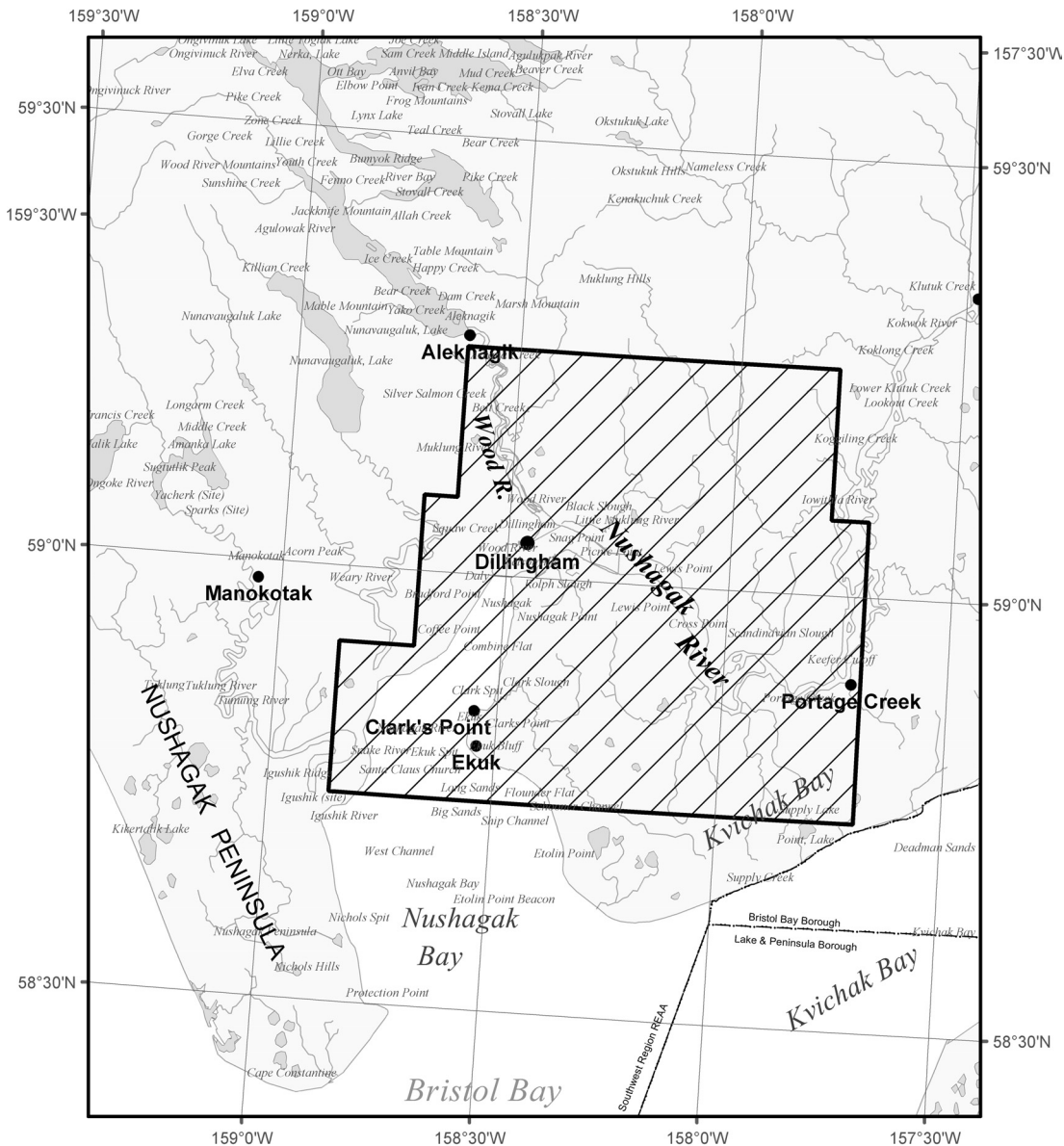


# Alaska Coastal Management Program Consistency Analysis For Proposed Bristol Bay Exploration License

March 3, 2004



Alaska Department of  
**NATURAL  
RESOURCES**  
DIVISION OF OIL & GAS

# Alaska Coastal Management Program Consistency Analysis for a Proposed Bristol Bay Exploration License

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# Introduction

The proposed Bristol Bay exploration license lies predominantly within Alaska's coastal zone within the Bristol Bay Coastal Resource Service Area (BBCRSA). Even though no exploration or development/production activities on this proposed license will be authorized as a result of license issuance, ADNIR is performing a forward-looking analysis of the potential effects of oil and gas related activities so that future proposals to perform work on this proposed license would be framed with coastal zone protection in mind. Consequently, the proposed license must comply with the Alaska Coastal Management Program (ACMP) and the BBCRSA Coastal Management Program (BBCRSACMP). Further, any future activities will undergo separate coastal zone consistency analyses when they are actually proposed.

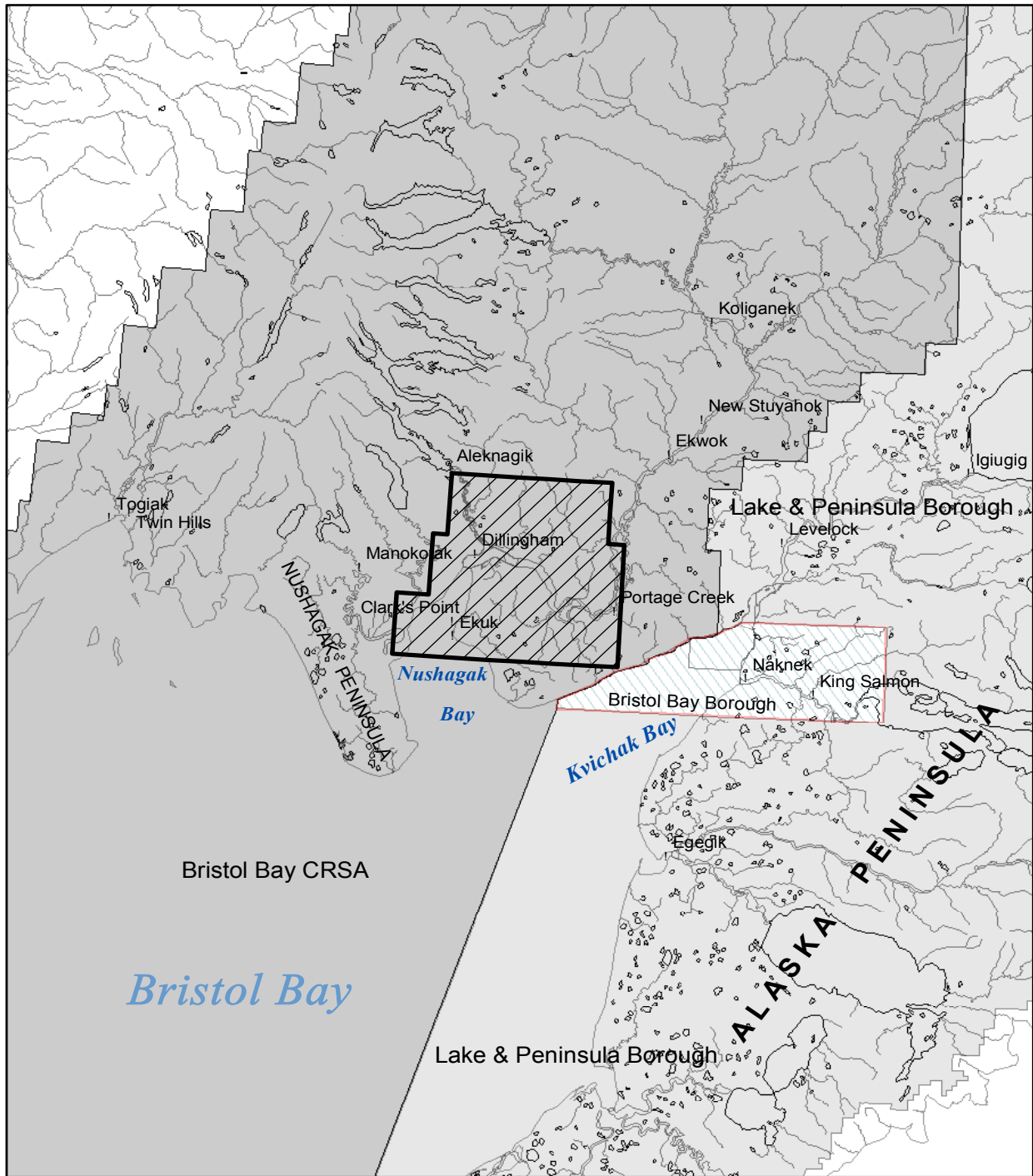
All information available to the Division of Oil and Gas (Division) was reviewed during this ACMP analysis and considered in the preparation of this proposed consistency determination. That information included the comments of state resource agencies, federal agencies, affected communities, Native Alaskan organizations, and a public interest group.

This consistency analysis is a phased review. AS 46.40.094 (Chapter 38 SLA 1994) allows phasing in ACMP consistency reviews. Oil and gas activities may be separated into three distinct phases: license/lease issuance, exploration, and development/production. The beginning phase of oil and gas activities is license/lease issuance. For these purposes, a license is similar to a lease in that it gives an entity, and no one else, the exclusive right to extract oil and gas from a particular area of land. In the case of a license, the licensee has the option at any time of converting the license into a lease. However, a lease is required prior to development or production of any oil and gas. Therefore, ADNIR views a license issuance as we would a lease sale.

Under AS 46.40.094(b), when an activity is authorized or developed in phases (such as oil and gas license issuance, exploration, and development/production), and each phase requires decisions relating to that particular phase, the agency responsible for the consistency determination for the particular phase may limit the consistency review to that particular phase if,

- A) the agency or another state agency must carry out a subsequent consistency review and make a consistency determination before a later phase may proceed; and
- B) the agency responsible conditions its consistency determination for that phase on a requirement that a use or activity authorized in a subsequent phase be consistent with the Alaska Coastal Management Program.

At the time of license issuance, it is impossible to reasonably foresee specific exploration or development projects or the effects of those projects. Each phase of oil and gas activity builds on the previous phase. Depending on the information gathered at the exploration phase, development may or may not take place. Before development may occur, exploration must show and confirm through drilling a well not only the existence of oil and/or gas but that the oil/gas exists in economically producible quantities. Therefore, at the initial disposal stage, there is insufficient information to render a consistency determination for the future exploration and development/production phases. At each phase, proposed site specific and project specific activities will be analyzed for consistency based on developing information gathered at the previous phase. Further, at each of these subsequent phases, exploration and development/production, is subject to alternative decisions on how, or when best to proceed with a project based upon this developing information.



**ACMP Boundaries**



Proposed Exploration License Area



Bristol Bay Borough



Bristol Bay CRSA



Lake & Peninsula Borough

0 5 10 20 30 40 50 Miles

0 10 20 40 60 80 100 Kilometers

Alaska Albers Equal Area Conic Projection

Source: NOAA, Dec 1994  
ADNR, 1996, 1988  
ADF&G, 1985, 2001

file: PBIF\_1-3\_ACPa.mxd

During the exploration and development/production phases, licensees submit a proposed plan of operations for permit approval. During this time, agency staff reviews information developed from the previous phase along with new technological developments and other site-specific data, and implements any needed alternative mitigation measures when determining whether the permit request complies with the ACMP.

Each licensee who proposes to conduct activities related to exploration will be required to submit a plan of operations to ADNR for review and approval. Each plan of operations must be site specific and tailored to the exploration activity for which the permit is requested. The plan of operations permit application must contain sufficient information based on data reasonably available at the time to determine the surface use requirements and impacts directly associated with the proposed operations (11 AAC 83.158(d)). All plans of operations for activities within the coastal zone will be reviewed by ADNR for consistency with the ACMP, including the enforceable coastal management policies of the BBCRSACMP. As a condition for consistency approval of the license operations, the Division will require such modifications as may be necessary to ensure consistency with the ACMP and the BBCRSACMP. Alternative measures in addition to the mitigation measures imposed at license issuance may be added to address site-specific resource values and activities directly associated with the proposed project. Similarly, if the licensee converts the license into a lease, any activities associated with development or production will need to be submitted as a plan of operations permit application, and will go through an ACMP review.

This consistency review for a proposed Bristol Bay exploration license is based on applicable statutes and regulations; facts that are known and material to this consistency review and reasonably foreseeable significant effects of the license proposal. In analyzing the proposed Bristol Bay exploration license against the standards of the ACMP, including the enforceable policies of the BBCRSA CMP, ADNR has conditioned license issuance with mitigation measures and licensee advisories to ensure that the license issuance is consistent with the ACMP.

Following is a discussion, by topic, of the Bristol Bay exploration license's consistency with the ACMP, including the BBCRSACMP. The mitigation measures, licensee advisories and applicable license terms are identified under the each district policy and ACMP standard to ensure that consistency is achieved. A complete list of permitting terms (mitigation measures and licensee advisories) proposed for this phase of activity is found in Appendix A to this document and a sample license form is found in Appendix B.

There are a number of ACMP and BBCRSACMP policies that are not applicable at the license issuance phase. These standards and policies will be applied when specific activities are proposed for specific locations in the licensee's plan of operations. Licensees will be required to comply with all applicable ACMP standards and district CMP policies before a plan of operations may be approved.

## ACMP Standards

The following discussion addresses the consistency of the proposed Bristol Bay exploration license by reviewing the applicable ACMP standards and BBCRSACMP enforceable policies. Issuance of an exploration license does not authorize the use of or approve activities on a license. While license issuance does not authorize any activity and does not in itself negatively impact the licensed area, there is likelihood that the license area will be explored and a possibility that development and production activities will occur. The mitigation measures discussed within this document were designed to minimize the impact of post-license issuance exploration activities on the coastal zone. Mitigation Measures, Licensee Advisories and applicable license terms are listed under the applicable ACMP standards. Following discussion of the statewide ACMP standards are individual discussions of BBCRSACMP policies.

### 6 AAC 80.040 Coastal Development.

- (a) In planning for and approving development in coastal areas, districts and state agencies shall give in the following order, priority to:
  - (1) water-dependent uses and activities;
  - (2) water-related uses and activities; and
  - (3) uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.
- (b) The placement of structures and the discharge of dredged or fill material into coastal waters must, at a minimum, comply with the standards contained in Parts 320-323, Title 33, Code of Federal Regulations (Vol. 42 of the Federal Register, pp. 37133 - 47 (July 19, 1977)).

*BBCRSACMP Policies 1.1 through 1.5 replace existing ACMP standards of regulation 6 AAC 80.040(a). A discussion of this proposed Bristol Bay exploration license's consistency with the Habitat Standard of the ACMP appears in the BBCRS CMP analysis that follows the analysis of statewide standards.*

*Placement of fill into wetlands requires a permit from the U.S. Army Corps of Engineers. This activity will require a separate ACMP review, at a future phase. Approved placement of fill or structures into wetlands must not only comply with federal law, but must also be consistent with Mitigation Measure 4 which requires that impacts to important wetlands be minimized and that facilities be sited in the least sensitive areas.*

### 6 AAC 80.050 Geophysical Hazard Areas.

- (a) Districts and state agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur.
- (b) Development in areas identified under (a) of this section may not be approved by the appropriate state or local authority until siting, design and construction measures for minimizing property damage and protecting against loss of life have been provided.

*Geophysical hazard areas as defined in the coastal management standards at 6 AAC 80.900 are discussed in Chapter Six of the Preliminary Best Interest Finding. They are areas that present a threat to life or property from geophysical or geological conditions, including flooding, tsunamis, storm surges, landslides, snowslides, faults, ice hazards and littoral beach processes.*

*Geophysical hazards may effect development of the proposed Bristol Bay exploration license area include storm surges, coastal and river flooding, ice jamming in the Wood and Nushagak Rivers, ice jamming along Nushagak Bay, and to a lesser degree earthquakes. However, risks can be minimized by siting major facilities away from potentially unstable areas as required by Mitigation Measure 3, and by designing them to meet or exceed Uniform Building Code specifications for seismic zone 2B . Additional precautions can be taken to identify and accommodate such site-specific conditions as unstable ground, flooding, and other localized hazards. Proper siting and engineering will minimize the detrimental effects of these natural processes.*

*Because an exploration license does not authorize any development or any activity under ADNR control, it is impossible to predict with any certainty what areas being licensed have high development potential; as a result, these cannot be identified at this time.*

## **6 AAC 80.060 Recreation.**

- (a) Districts shall designate areas for recreational use. Criteria for designation of areas of recreational use are
  - (1) the area receives significant use by persons engaged in recreational pursuits or is a major tourist destination; or
  - (2) the area has potential for high quality recreational use because of physical, biological or cultural factors.
- (b) Districts and state agencies shall give high priority to maintaining and, where appropriate, increasing public access to coastal water.

*Issuance of an exploration license does not authorize any activities that could restrict the recreational use of areas within the coastal zone. This policy will be applied at the plan of operations permit phase, which undergoes a separate ACMP review.*

*Mitigation Measures 1, 2, 25, 26, and 31, and Licensee Advisory 2 are intended to protect recreational values and maintain unhindered access.*

## **6 AAC 80.070 Energy Facilities.**

- (a) Sites suitable for the development of major energy facilities must be identified by districts and the state in cooperation with districts.
- (b) The siting and approval of major energy facilities by districts and state agencies must be based, to the extent feasible and prudent, on the following standards:



- (1) site facilities so as to minimize adverse environmental and social effects while satisfying industrial requirements;
  - (2) site facilities so as to be compatible with existing and subsequent adjacent uses and projected community needs;
  - (3) consolidate facilities;
  - (4) consider the concurrent use of facilities for public or economic reasons;
  - (5) cooperate with landowners, developers and federal agencies in the development of facilities;
  - (6) select sites with sufficient acreage to allow for reasonable expansion of facilities;
  - (7) site facilities where existing infrastructure, including roads, docks and airstrips is capable of satisfying industrial requirements;
  - (8) select harbors and shipping routes with the least exposure to reefs, shoals, drift ice and other obstructions;
  - (9) encourage the use of vessel traffic control and collision avoidance systems;
  - (10) select sites where development will require minimal site clearing, dredging and construction in productive habitats;
  - (11) site facilities so as to minimize the probability, along shipping routes, of spills or other forms of contamination, which would affect fishing grounds, spawning grounds and other biologically productive or vulnerable habitats, including marine mammal rookeries and hauling out grounds and waterfowl nesting areas;
  - (12) site facilities so that design and construction of those facilities and support infrastructures in coastal areas of Alaska will allow for the free passage and movement of fish and wildlife with due consideration for historic migratory patterns and so that areas of particular scenic, recreational, environmental or cultural value will be protected;
  - (13) site facilities in areas of least biological productivity, diversity and vulnerability and where effluent and spills can be controlled or contained;
  - (14) site facilities where winds and air currents disperse airborne emissions, which cannot be captured before escape into the atmosphere;
  - (15) select sites in areas which are designated for industrial purposes and where industrial traffic is minimized through population centers; and
  - (16) select sites where vessel movements will not result in overcrowded harbors or interfere with fishing operations and equipment.
- (c) Districts shall consider that the uses authorized by the issuance of state and federal licenses for mineral and petroleum resource extraction are uses of state concern.

*BBCRSACMP Policies 4.1 through 4.12 supplement 6 AAC 80.070 with the exception of subsection (b)(1) which is replaced. See analysis that follows this analysis of statewide standards.*

*An exploration license does not authorize energy facilities and at license issuance stage it cannot reasonably be foreseen if a developable deposit might be discovered that might warrant an energy facility. Until a specific energy facility is proposed there is no opportunity for siting a facility under 6 AAC 80.070(b). However, if and when such a project is proposed, it will be measured against this standard as well as the rest of the ACMP. The energy facility standards include sixteen criteria, which, to the extent feasible and prudent, will regulate the location of energy-related facilities.*

*Mitigation Measures 1 - 5, 10 - 15, 22 - 27, and Licensee Advisories 1 - 3, and 5 - 8 will help ensure that future energy facility development complies with the ACMP.*

## 6 AAC 80.080 Transportation And Utilities.

- (a) Transportation and utility routes and facilities in the coastal area must be sited, designed and constructed so as to be compatible with district programs.
- (b) Transportation and utility routes and facilities must be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility.

*An exploration license does not authorize transportation and utility routes and facilities and at the license issuance stage it cannot reasonably be foreseen if a developable deposit may be discovered that might warrant the siting, design and construction of a transportation or utility route or facility. Until a specific route or facility is proposed there is no opportunity for siting under 6 AAC 80.080(b). However, if and when such a project is proposed, it will be measured against this standard as well as all other policies of the ACMP. Mitigation Measure 3 prohibits the siting of facilities within 500-feet of all fishbearing waterbodies and within one half mile of the Wood and Nushagak Rivers, with certain exceptions.*

## 6 AAC 80.110 Mining And Mineral Processing.

- (a) Mining and mineral processing in the coastal area must be regulated, designed and conducted so as to be compatible with the standards contained in this chapter, adjacent uses and activities, statewide and national needs and district programs.
- (b) Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands and spits, when there is no feasible and prudent alternative to coastal extraction which will meet the public need for sand or gravel.

*Exploration licensing authorizes no activity and, at this time, no project is proposed. This policy will be applied at the plan of operations permit phase during a future ACMP review. The issuance of these licenses only conveys the exclusive right to extract oil and gas from state-owned lands should that activity be authorized in later phases. Licensee Advisory 1 supports this standard.*

## 6 AAC 80.120 Subsistence.

- (a) Districts and state agencies shall recognize and assure opportunities for subsistence usage of coastal areas and resources.
- (b) Districts shall identify areas in which subsistence is the dominant use of the coastal resources.
- (c) Districts may, after consultation with appropriate state agencies, Native corporations and any other person or groups, designate areas identified under (b) of this section as subsistence zones in which subsistence uses and activities have priority over all nonsubsistence uses and activities.
- (d) Before a potentially conflicting use or activity may be authorized within areas designated under (c) of this section, a study of the possible adverse impacts of the proposed potentially conflicting use or activity upon subsistence usage must be conducted and appropriate safeguards to assure subsistence usage must be provided.
- (e) Districts sharing migratory fish and game resources must submit compatible plans for habitat management.

*This standard requires districts and state agencies to recognize and assure opportunities for subsistence usage of coastal areas and resources. This standard will be applied at the plan of operations permit phase during a future ACMP review. All Mitigation Measures support this standard. Mitigation Measure 15 specifically supports this standard.*

## 6 AAC 80.130 Habitats.

- (a) Habitats in the coastal area that are subject to the Alaska coastal management program include
  - (1) offshore areas;
  - (2) estuaries;
  - (3) wetlands and tideflats;
  - (4) rocky islands and sea cliffs;
  - (5) barrier islands and lagoons;
  - (6) exposed high-energy coasts;
  - (7) rivers, streams and lakes; and
  - (8) important upland habitat
- (b) The habitats contained in (a) of this section must be managed so as to maintain or enhance the biological, physical and chemical characteristics of the habitat which contribute to its capacity to support living resources,
- (c) In addition to the standard contained in (b) of this section, the following standards apply to the management of the following habitats:
  - (1) offshore areas must be managed as a fisheries conservation zone so as to maintain or enhance the state's sport, commercial and subsistence fishery;
  - (2) estuaries must be managed so as to assure adequate water flow, natural circulation patterns, nutrients and oxygen levels and avoid the discharge of toxic wastes, silt, and destruction of productive habitat;
  - (3) wetlands and tideflats must be managed so as to assure adequate water flow, nutrients and oxygen levels, and avoid adverse effects on natural drainage patterns, the destruction of important habitat and the discharge of toxic substances;
  - (4) rocky islands and sea cliffs must be managed so as to avoid the harassment of wildlife, destruction of important habitat and the introduction of competing or destructive species and predators;
  - (5) barrier islands and lagoons must be managed so as to maintain adequate flows of sediments, detritus and water, and avoid the alteration or redirection of wave energy which would lead to the filling in of lagoons or the erosion of barrier islands, and discourage activities which would decrease the use of barrier islands by coastal species, including polar bears and nesting birds;
  - (6) high energy coasts must be managed by assuring the adequate mix and transport of sediments and nutrients and avoiding redirection of transport processes and wave energy; and
  - (7) rivers, streams and lakes must be managed to protect natural vegetation, water quality, important fish or wildlife habitat and natural water flow.

- (d) Uses and activities in the coastal areas which will not conform to the standards contained in (b) and (c) of this section may be allowed by the district or appropriate state agency if the following are established:
  - (1) there is a significant public need for the proposed use or activity;
  - (2) there is no feasible prudent alternative to meet the public need for the proposed use or activity which would conform to the standards contained in (b) and (c) of this section; and
  - (3) all feasible and prudent steps to maximize conformance with the standards contained in (b) and (c) of this section will be taken.
- (e) In applying this section, districts and state agencies may use appropriate expertise, including regional programs referred to in 6 AAC 80.030 (b).

*Issuance of an exploration license does not authorize any activities. While licensing does not in itself negatively impact the license area, there is likelihood that some license areas will be explored, that permits will be sought, and a possibility that one of those explored areas will actually go into production. Generally, oil and gas activities will not maintain or enhance the habitats under 6 AAC 80.130(a). The habitat standard provides for uses and activities that fail to conform to the standards contained in (b) and (c) above by permitting the district or appropriate agency to grant approvals only when they meet the three part test found in subsection (d).*

*There is a significant public need to explore for new oil and gas reserves to meet growing statewide and local demand for energy, revenue, and employment. The majority of the state's revenue and much of the state's economic base are generated from oil and gas exploration and development/production. Over the long-term, the revenue and employment generated by it is expected to decline. Current reserves and income projections suggest that future production and state revenues will decline as well. If these anticipated declines are to be offset, new areas for exploration and development/production must be made available now. Issuance of the proposed Bristol Bay exploration license is a first step toward meeting future statewide needs.*

*In the Bristol Bay area, municipal revenues and personal income from the economy's traditional mainstay, commercial fishing, has evaporated due to a decline in high fish returns of the 1980s and 1990s, and from a decades long steady decline in wholesale salmon prices. Compounding this problem are overall increases in harvesting costs. Energy costs, primarily home heating and diesel fuel in the region are nearly double the statewide average. Even with state assistance, rural electric costs are 2-3 times higher than urban energy costs. Currently, all fuel is barged into communities along the coast and up rivers. The people need a less expensive and less environmentally risky energy supply. This need is crucial to Alaska's economy and its residents.*

*Numerous local residents, while expressing that subsistence resources and access to them must be preserved as the highest priority, also support exploration of this potentially beneficial resource. Communities expressing support for proposed oil and gas exploration include the City of Dillingham, Bristol Bay Borough, City of Aleknagek, Aleknagik Traditional Council, Aleut Corporation, Bristol Bay Area Health Corporation, Bristol Bay Native Corporation, Village of King Salmon, Curyung Tribal Council, King Salmon Tribe, Paug-Vik Inc. Ltd., and Togiak Natives Inc.*

*ADNR and the Bristol Bay Native Corporation have signed a MOU to advance efforts toward bringing hydrocarbon exploration and possibly development to the region. The search for low-cost fuel is underway on adjacent Native lands. Low cost fuel would bring needed benefits to the struggling Bristol*

*Bay fishing economy. Potential fiscal effects of the proposed Bristol Bay exploration license are discussed in the Best Interest Finding, Chapter Five.*

*There is no feasible or prudent alternative to offering lands in the coastal zone that would meet the public need for the proposed Bristol Bay exploration license.*

*ADNR has taken all feasible and prudent steps at the license issuance stage to maximize conformance with the standards contained in 6 AAC 80.130(b) and (c); that is, to maintain the biological, physical and chemical characteristics of coastal habitats and the sport, commercial and subsistence fisheries in the license area. ADNR has attached a number of mitigation measures and licensee advisories to the license in order to maximize conformance with these standards. Further, it has ensured that all feasible and prudent steps to maximize conformance will be taken in the future since in the later stages, exploration and development/production, the project will once again be measured against the standards of the ACMP, including the Habitat Standard.*

*If further steps are necessary to maintain habitat, the reapplication of the ACMP will ensure that more steps are taken. The mitigation measures and licensee advisories for this proposed Bristol Bay exploration license represent feasible and prudent steps to meet the requirements of 6 AAC 80.130(b) and (c) at license issuance stage. In addition, other measures may be imposed when time-certain, site-specific activities are reviewed for consistency with the ACMP throughout the permitting process.*

*Mitigation Measures 2 - 14, 16 - 25, and all but Licensee Advisory 2, support the ACMP habitat standard.*

## **6 AAC 80.140 Air, Land And Water Quality.**

Notwithstanding any other provision of this chapter, the statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land and water quality are incorporated into the Alaska Coastal Management Program and, as administered by that agency, constitute the components of the coastal management program with respect to those purposes. These statutes and regulations are found in Title 46 of the Alaska Statutes and Chapter 18 of the Alaska Administrative Code.

*Issuance of the proposed Bristol Bay exploration license authorizes no activities that could impact air, land, and water quality. All activities authorized in later phases will be reviewed against these standards and appropriate restrictions will be imposed by ADEC at that time.*

## **6 AAC 80.150 Historic, Prehistoric And Archaeological Resources.**

Districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding or illustration of national, state or local history or prehistory.

*ADNR researched available sources and found 100 known historic and archaeological sites within the licensing area. There exists a high potential for the discovery of additional sites. However, exploration licensing authorizes no activity and at this time, no project is proposed. This policy will be applied at the plan of operations permit phase during a future ACMP review.*

*Mitigation Measures 27 – 29 have been designed to comply with the Historic, Prehistoric and Archaeological Resources standard or will assist in its enforcement.*

## **Bristol Bay Coastal Resources Service Area Coastal Management Program**

The proposed Bristol Bay exploration license area is completely within the boundaries of the Bristol Bay Coastal Resources Service Area (BBCRSA).<sup>1</sup> The BBCRSA program, implemented in 1987, includes the following general overriding goals:

- (1) to maintain and enhance the region's fish and wildlife populations and their habitats;
- (2) to protect the existing culture and lifestyle of the region's residents and minimize their disruption; and
- (3) to encourage economic productivity and diversity in the region, while minimizing conflicts with the fishing industry and subsistence lifestyle.

In addition to the goals stated above, the BBCRSA management plan identifies issues and sets forth enforceable policies. All subject uses on state and private lands within the BBCRSA must be consistent, to the maximum extent practicable, with the enforceable policies of this program. All oil and gas activities resulting from issuance of the exploration license that require a permit are considered uses subject to the plan. The BBCRSA plan specifically identifies uses that are subject to the plan's enforceable policies, including seismic activities, pipelines and rights-of-way, structures used to explore and produce oil and gas, storage areas, yards, and facilities used to support oil and gas development, electric transmission lines, and ports used to transport oil and gas.

The enforceable policies of the BBCRSA and the proposed Bristol Bay exploration license mitigation measures, licensee advisories, and license terms that address enforceable policies are discussed below. In the event a district policy is more stringent than an exploration license's mitigation measure, the district policy will prevail.

Most analyses below refer to proposed Bristol Bay exploration license mitigation measures and licensee advisories. See Appendix A for a complete list of referenced measures and advisories that will be attached to any issued exploration license.

### **Coastal Development Policies**

Policies 1.1 through 1.5 replace existing ACMP standards of regulation 6 AAC 80.040(a). ACMP regulation 6 AAC 80.040(b) remains in effect, and policies 1.6 and 1.7 are new regulations for the ACMP.

- 1.1 When planning for and approving development in coastal areas, priorities will be given in the following order to:

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<sup>1</sup> Effective Dates: February 17, 1987: Original effective date of the Bristol Bay CRSA Coastal Management Program (CMP). The CMP was reprinted in June 1992 to reflect a boundary reduction due to formation of the Aleutians East and Lake and Peninsula Boroughs. Minor editorial changes were made. August 23, 1990: The Nushagak and Mulchatna Rivers Recreation Management Plan goes into effect, and supplements the Bristol Bay CRSA CMP.

- a. water-dependent uses and activities;
- b. water-related uses and activities;
- c. uses and activities which are neither water-dependent or water-related, but for which there is no feasible and prudent alternative to meet the public need.

*The coastal development standards of the ACMP are embodied in the Mitigation Measures that have been developed for the proposed Bristol Bay exploration license. The Best Interest Finding is a document guiding the planning of development of future oil and gas extraction and Mitigation Measures address maintaining and protecting values of water-dependent and water-related activities; measures aim to preserve values given to marine recreation, marine shipping and transportation, navigation, subsistence, commercial fishing, and hunting.*

*ADNR, in cooperation with other state agencies, developed Mitigation Measures to comply with coastal policies. In addition, they were developed based on public input with respect to preservation of fish and wildlife habitat values as well as other human uses. Proposed exploration and development plans are measured against these stipulations when they are being considered at the plan of operations phase.*

*Nearly all of the Mitigation Measures address the intent of the habitat and coastal development standards. For example, Mitigation Measure 3 prohibits the siting of facilities, like drill sites within 500 feet of fishbearing waterbodies and one half mile from the Nushagak and Wood Rivers, unless it is not feasible and prudent to place the facility outside of this buffer. By attaching these mitigation measures to the exploration license, future license-related activities will be planned in a way that avoids any deleterious impacts to other uses of the coastal zone. Geophysical exploration and activities requiring a land use permit on state lands will undergo an ACMP consistency review separate from this proposed consistency determination.*

- 1.2 In order to minimize negative impacts on water quality, projects adjacent to public water supplies and fish habitat will maintain a setback adequate to protect these uses. This setback will, to the extent feasible and prudent, be at least 100 feet landward of the ordinary high water mark. Where it is not feasible and prudent to maintain the setback, other measures will be implemented to accomplish the purpose of this policy. The setback requirement does not apply to projects that require an over-water or water edge location, nor does it preclude or restrict necessary stream, river or lake crossings. Setback requirements contained in ADEC regulation at 18 AAC 72.015 remain in effect. Compliance with Fish Guideline-2 contained in the ADNR Bristol Bay Area Plan (1984) will also achieve compliance with this policy.

*Exploration licensing could not authorize such an activity. This policy will be applied at the plan of operations permit phase, which undergoes a separate ACMP review. Mitigation Measure 3 prohibits the siting of facilities within not 100, but 500-feet of all fishbearing waterbodies and within one half mile of the Nushagak and Wood Rivers.*

- 1.3 Projects that require dredging or filling in streams, rivers, lakes, wetlands, or saltwater areas including tideflats, will be located, designed, constructed, and maintained in a manner so as to:
- a) avoid significant impacts to critical fish and wildlife habitat;
  - b) avoid significant interference with fish migration, spawning, and rearing as well as other critical life history phases of wildlife;
  - c) limit areas of direct disturbance to as small an area as possible;
  - d) minimize the amount of waterborne sediment traveling away from the dredge or fill site; and
  - e) maintain circulation and drainage patterns in the area of the fill.

*Exploration licensing could not authorize such an activity. This policy will be applied at the plan of operations permit phase, which undergoes a separate ACMP review. Mitigation Measures 2, 3 and 4 support this policy. Additionally, this policy is supported by measures addressing the handling of fuel and hazardous substances, waste disposal, and wildlife habitat protection.*

- 1.4 Dredged materials disposed onshore will be diked or similarly contained and stabilized in order to prevent erosion or leaching of harmful or toxic substances into fish bearing waters. This policy does not apply to use of dredged sand and gravel for construction.

*Neither exploration licensing nor any ADNR permit could authorize such an activity. At a minimum, the dredging of material would require a separate permit from the U.S. Army Corps of Engineers and a fish habitat permit from OHMP, all requiring a future ACMP review. This policy could only be implemented at a future phase.*

- 1.5 To the extent feasible and prudent, structures in or over streams, lakes, rivers, wetlands, or saltwater including tideflats, will be located, designed, constructed, and maintained to:
- a) avoid decreases in water quality;
  - b) avoid obstructions to fish and wildlife migration, spawning, and rearing; and
  - c) avoid obstructing navigation and fish harvesting activities.

*This policy will be applied at the plan of operations permit phase, which undergoes a separate ACMP review. Mitigation Measure 3 prohibits the siting of facilities within the riparian zone of a waterbody and within one-half mile of the Wood and Nushagak Rivers.*

- 1.6 Public land made available for settlement will be located and designed so as to:
- a) avoid endangering human life and property;
  - b) maintain to the greatest extent possible fish and wildlife productivity; and
  - c) minimize conflicts with existing uses, especially subsistence use.

*This policy does not apply to exploration licensing or any phase of oil and gas activity.*

- 1.7 Before designating public lands to be disposed of for settlement purposes, government agencies will consult with the CRSA Board in determining:
- a) the market for public land;
  - b) the type of disposal that meets the needs of the people in the area;
  - c) the specific location within the designated disposal area; and
  - d) the timing and design of the disposal.

Those areas that were designated in the Bristol Bay Area Plan as approved in September 1984 are consistent with this policy.

*This policy does not apply to exploration licensing or any phase of oil and gas activity.*

*Licensees will be required to comply with these Coastal Development Policies in order for their activities to be consistent with the ACMP and the BBCRSA CMP. Mitigation Measures may be applied to proposed activities prior to authorization.*



## Geophysical Hazards

Policy 2.1 replaces the existing ACMP standard of regulation 6AAC 80.050(b).

- 2.1 Projects located in known geological hazard areas must incorporate siting, design, and construction measures which will protect against the loss of human life, property damage, and the potential significant loss of fish and wildlife populations and habitats which may result from the impact of a geological hazard event on the project.

*See discussion of the Statewide ACMP standard applicable to geophysical hazards. Licensees will be required to comply with these Geophysical Hazards Policies in order for their activities to be consistent with the ACMP and the BBCRSACMP. Exploration Licensing does not authorize any project, thus identification of geophysical hazards in relation to a proposed project cannot be made at this phase. Mitigation Measures 3, 5, 11, 13, and 16 - 21, and Licensee Advisories 1, 2, 3, and 6 support policies to reduce the potential for loss of life, habitat, and property.*

## Recreation

Policy 3.1 supplements the existing ACMP standard 6 AAC 80.060 which remains in effect.

- 3.1 Rivers, lakes, and streams are designated the most important recreational use areas in the district. Hunting and fishing are recognized as the dominant recreational activity. Projects and activities in these areas, including commercial recreational use, will be located, designed, and conducted to avoid or minimize loss or displacement of existing fish and wildlife populations, interference with subsistence or recreational harvest, and adverse impacts on the physical and cultural features which contribute to the high recreational quality of the district. At a minimum, this includes maintaining public access, water quality, fish migration, rearing, and spawning areas, historic and geological features, and scenic values.

*Licensees will be required to comply with this Recreation Policy in order for their activities to be consistent with the ACMP and the BBCRSACMP. With hardly an exception, all Mitigation Measures and Licensee Advisories support this policy. Mitigation Measure 1 specifically addresses reducing impacts to local residents.*

## Energy Facilities

Policies 4.1 through 4.12 supplement the existing ACMP standards of 6 AAC 80.070 with the exception of subsection (b)(1) which is replaced.

- 4.1 Geophysical surveys on land will, to the extent feasible and prudent, be located, designed, and conducted in a manner so as to avoid disturbances to fish and wildlife populations, habitats, and harvests. Seasonal restrictions, restrictions on the use of explosives, or restrictions relating to the type of transportation utilized in such operations will be included as necessary to mitigate potential adverse impacts.

*Exploration licensing authorizes no activity. All geophysical exploration permits must undergo a separate ACMP review that includes opportunity for public comment. This policy will be applied when*

*exploration is proposed. Additionally, Mitigation Measures 6 - 8 specifically restrict exploration and the use of explosives that could harm fish and wildlife habitat. Other Mitigation Measures, such as 1 and 2 address public access, recreation, subsistence and commercial harvesting. Seasonal restrictions are always an option for the Director at the plan of operations phase to mitigate adverse impacts of energy facilities. Mitigation Measure 25 addresses use of roads for exploration.*

- 4.2 Geophysical surveys in fresh and marine waters will require the use of energy sources such as air guns, gas exploders, or other sources that have been demonstrated to be harmless to fish and wildlife. Blasting for purposes other than geophysical surveys will be approved on a case-by-case basis after all steps have been taken to minimize impacts and when no feasible and prudent alternative exists to meet the public need.

Intent: Policy 4.2 balances several uses of state concern and national interest, including the exploration and production of oil and gas resources and the protection and utilization of the fishery in Bristol Bay. After considering the information available on the value of the Bristol Bay fishery, the potential adverse impacts associated with the use of explosives in open water and the potential information to be derived from seismic activities in the transition zone, the state and the Bristol Bay CRSA have serious concerns about the use of explosives for seismic exploration in marine waters. The state recognizes that a limited use of explosives may be necessary to obtain quality seismic data in certain areas of the transition Zone, such as when there is a need to "tie "geophysical information between potential offshore lease tracts and onshore well sites.

*This policy will be applied at the plan of operations permit phase during a future ACMP review and will be attached as stipulations to the permit if necessary.*

- 4.3 Vessels engaged in offshore geophysical exploration will conduct their operations to avoid significant interference with commercial fishing activities.

*This policy will be applied at the plan of operations permit phase during a future ACMP review. Impacts to commercial operations in an area of proposed activity must be mitigated under Mitigation Measures 1 and 2.*

- 4.4 Critical fish and wildlife habitat will be leased for energy development only if it is compatible, or, through the use of mitigating measures, can be made compatible, with the maintenance of such populations and habitat. Lease free buffer zones in or adjacent to critical habitat will be an alternative evaluated when an area is to be offered for lease.

*This policy will be applied at the plan of operations permit phase during a future ACMP review. Stipulations will be imposed if necessary at that time to ensure that a proposed facility maintains adjacent fish populations and habitat. No buffer zones beyond setbacks contained in the Mitigation Measures have been designated in the proposed license area. However, additional buffers maybe considered and delineated at the plan of operations permit phase, which undergoes a separate ACMP review that includes a public comment period. For example, Mitigation Measure 3 prohibits the siting of facilities within a 500-foot riparian zone of fishbearing waterbodies and within 1/2-mile of the Wood and Nushagak Rivers. Other measures protect fish habitat from adverse impacts of oil and gas activities, including Measures 1, 2, 4 - 8, 15 - 24, and Licensee Advisories 1, 3, 4, 6 - 8.*

*ADNR believes that exploration licensing, and oil and gas leasing in general as they are reviewed under AS 38.05.035 are compatible with preservation of habitat values and also believes that with attached mitigation measures they are consistent with the ACMP and the Bristol Bay CRSA enforceable policies.*

*Surface entry into the Bristol Bay Fisheries Reserve is currently illegal. With directional drilling and a no-surface entry restriction, habitats can be protected without lease-free buffers.*

4.5 Energy facilities will be sited, designed, constructed, and maintained so as to avoid significant adverse impacts to fish and wildlife populations. Oil and gas exploration and production wells will be located so as to avoid interfering with commercial fishing and subsistence harvests within the Bristol Bay Fisheries Reserve (established per AS 38.05.141), the Togiak and Chignik Bay commercial fishing districts regulated by the Alaska Department of Fish and Game, and within Port Heiden Bay. In all other offshore areas, such interference will be avoided to the extent feasible and prudent. In addition, measures to prevent drilling wastes, oil spills, and other toxic or hazardous materials from contaminating drinking water supplies and fish, waterfowl, and shorebird habitat will be utilized.

Impermeable lining and diking will be required for sewage ponds and onshore oil storage facilities (with a storage capacity greater than 660 gallons). Buffer zones of not less than 100 feet and up to 1,500 feet will be required to separate oil storage facilities (with a capacity greater than 660 gallons) and sewage ponds from freshwater supplies, streams, lakes, and wetlands that are important to fish, waterfowl, or shorebirds, unless such a requirement is not feasible or prudent. Sump and reserve pits must be impermeable and otherwise fully contained through diking or other means.

*No activity is proposed at this time. This policy will be applied at the plan of operations permit phase during a future ACMP review and will be attached as a stipulation to the permit. Offshore areas identified by this policy are outside of the proposed Bristol Bay exploration license area. Mitigation measures 16 and 17 and Licensee Advisory 6 support this policy.*

4.6 Oil produced in offshore areas will not be stored offshore, but will be transported to shore via pipeline, unless a pipeline is determined to have a greater potential for adverse environmental impact.

Intent- In implementing this policy, social, environmental and economic factors will be considered in balancing the benefits of offshore storage versus pipeline for the transportation of oil and gas.

*The proposed Bristol Bay exploration license area is onshore and includes no offshore portions. If some offshore activity were proposed at the plan of operations permit phase, activities will be reviewed for consistency with this policy under an ACMP review that includes a public comment period.*

4.7 Offshore pipelines and other sub-sea structures will be designed or protected so as to allow trawling gear to pass over without snagging or otherwise damaging the structure or gear.

*See response to Policy 4.6 above.*

4.8 Pipelines and pipeline rights-of-way will, to the extent feasible and prudent, be sited, designed, constructed, and maintained to prevent risk to fish populations and their spawning, rearing, and over wintering areas from a spill, pipeline break, or other construction activities. Pipelines crossing fish-bearing waters will incorporate feasible and prudent measures to minimize the amount of oil which may enter such waters as a result of a pipeline break.

Intent. The evaluation of "feasible and prudent measures" shall consider social, environmental and economic costs, changing technologies, results of pertinent studies, pipeline location and other factors pertinent to the decision-making.

*This policy will be applied at the plan of operations permit phase during a future ACMP review. Mitigation Measures 3, 5, and 8 address pipelines and Licensee Advisory 6 discusses mandatory spill prevention planning required by law.*

- 4.9 Pipelines which cross critical caribou habitat or critical or important moose habitat will, to the extent feasible and prudent, be buried wherever soil and geophysical conditions permit. Pipelines that cannot avoid critical caribou or moose habitat and cannot be buried due to soil or geophysical conditions, will be designed and constructed in a manner that has been demonstrated to provide free movement and safe passage for caribou and moose.

*This policy will be applied at the plan of operations permit phase during a future ACMP review. Mitigation Measures 3, 5, and 8 support this policy.*

- 4.10 Projects to determine the feasibility of using energy sources such as wind, solar, peat, and hydro will be permitted provided the project conforms to the policies contained in this program and all other applicable laws.

*This policy does is not applicable to exploration licensing or oil and gas generally.*

- 4.11 Hydroelectric projects will not dam, divert, or draw down rivers, streams, or lakes that support important commercial, subsistence, or recreational fish species unless the project is designed to cause no net loss to fish production and no interference with navigation.

*This policy does is not applicable to exploration licensing or oil and gas generally.*

- 4.12 Transmission lines will be located, designed, constructed, and maintained in a manner so as to minimize adverse impacts to fish and wildlife populations and habitat. Existing transportation corridors will be used for transmission lines to the extent feasible and prudent. Where this cannot be done, the construction of new lines will avoid creating permanent access corridors and will minimize damage to the land surface.

*This policy may be applicable at the plan of operations permit phase, and more likely at the development phase, and will be subject to future ACMP review. Mitigation measures affecting facility siting, design and construction aim to minimize impacts to fish and wildlife populations and habitat.*

*Licensees will be required to comply with these Energy Facility Policies in order for their activities to be consistent with the ACMP and the BBCRS CMP. Mitigation Measures 1 – 5, 10 – 15, 25, 2631, 32, and Licensee Advisories 1 - 4, and 6 - 8 support these policies.*

## Transportation and Utilities

Policies 5.1 through 5.6 supplement the existing ACMP standards of regulation 6 AAC 80.080(b). RCMP standard 6 AAC 80.080(a) remains in effect.

- 5.1 Restrictions on traditional methods and means of public access through State and federal land will be minimized. Elements of public access are site-specific aspects such as roads, waterways, trails, campsites, and aircraft landing areas. Traditional means include but are not limited to aircraft, off-road vehicles, boat, snow machine, dogsled, and foot.

*Exploration licensing authorizes no activity and at this time, no project is proposed. This policy will be applied at the plan of operations permit phase during a future ACMP review. Both a plan of operations ACMP review and a Geophysical Exploration permit ACMP review include a public comment period. Mitigation Measure 26 prohibits any restriction of public access in the proposed license area. Mitigation Measures 1 and 2 specifically address protection of existing recreational, commercial, and subsistence activities; activities that could be affected by a powerline or road. Mitigation Measure 15 provides for a process to protect traditional subsistence use of the proposed license area.*

- 5.2 Projects designed to upgrade existing transportation facilities in the district will be permitted, provided the project conforms with the policies contained in this program and all other applicable laws. New roads and other transportation facilities will only be built to support community expansion and resource development. New inter-community roads will not be allowed unless such a road is supported by the city or village council in each community to be connected.

*Exploration licensing authorizes no activity and at this time, no project is proposed. This policy will be applied at the plan of operations permit phase during a future ACMP review. All proposed projects must conform to the mitigation measures and licensee advisories attached to the license and be consistent with the policies of the BBCRSA.*

- 5.3 New roads will, to the extent feasible and prudent, be located, designed, constructed, and maintained to avoid the loss of critical fish and wildlife habitat and loss or displacement of fish and wildlife populations. River, stream, and lake crossings will be minimized, and measures to maintain bank stability and prevent siltation and pollution of fish habitat will be incorporated.

*See response to Policy 5.2.*

- 5.4 All bridges and culverts on fish-bearing streams will be large enough and positioned to avoid changing the direction and velocity of stream flow up to and including annual flood conditions or otherwise interfere with the migration or spawning activities of fish unless it is determined that deviation from this policy will not have a significant impact on fish resources.

*No such activity is proposed or could be authorized by exploration licensing. Under state law and Licensee Advisory 3, any activity, like culvert installation in a designated anadromous fish-bearing stream or any activity that has the potential to obstruct free and efficient passage of fish in any fish-bearing waterbody requires a separate permit from OHMP that undergoes an ACMP review. Any proposed culvert or bridge installation is subject to ACMP review.*

- 5.5 Permits for temporary off-road access will require that surface disturbance and destruction of fragile soils and wetlands be minimized. Operations requiring repeated off-road vehicle use will, to the extent feasible and prudent, avoid caribou calving habitat during caribou calving and, if deemed appropriate, will be restricted in caribou migration and caribou and moose over-wintering areas during sensitive periods. Restrictions need be applied only when and where it is determined that there are significant populations present. This policy does not apply to local traffic or traditional hunting activities.

*Exploration licensing authorizes no activity and at this time, no project is proposed. This policy will be applied at the plan of operations permit phase during a future ACMP review. All proposed projects must conform to the mitigation measures and licensee advisories attached to the license and be consistent with the policies of the BBCRSA. Mitigation Measure 4 requires that impacts to important wetlands be minimized and that facilities, including roads, be sited in the least sensitive areas.*

- 5.6 New airstrips will be located, designed, constructed, and operated in a manner so as to minimize physical, visual, and acoustical disturbances to fish and wildlife populations and habitats.

*See response to Policy 5.5.*

*Licensees will be required to comply with these Transportation and Utilities Policies in order for their activities to be consistent with the ACMP and the BBCRSA CMP. Mitigation Measures 1 –5, 10 - 15, 25, and 26, and Licensee Advisories 2 and 6 support these policies.*

## Fish and Seafood Processing

Policies 6.1 and 6.2 supplement the existing ACMP standards of regulation 6 AAC 80.090 which remains in effect.

*Fish and Seafood Policies do not apply to proposed Bristol Bay Exploration Licensing or oil and gas activities in general.*

## Timber Harvest

Policy 7.1 supplements the existing RCMP standard of regulation 6 AAC 80.100 which remains in effect.

- 7.1 In recognition of the fact that there is little commercial forestry potential in the district, the harvest of timber, including commercial harvest, will be conducted primarily to meet the use needs of local residents.

*This policy is not applicable to proposed exploration licensing.*

## Mining

Policies 8.1 through 8.8 replace the existing ACMP standards of regulation 6 AAC 80.110.

- 8.1 Access across public lands for mineral exploration and development activities will be maintained to the extent it conforms with the policies contained in this program and all other applicable laws.

*Exploration licensing does not authorize any such activity, nor is it proposed at this time. Should mining be proposed at the plan of operations permit or geophysical exploration permit phase, the activity will be reviewed for consistency with the ACMP, applicable BBCRSA policies, and the mitigation measures and licensee advisories attached to the license. Under Licensee Advisory 1, gravel mining within an active floodplain may be prohibited. Upland sites will be restricted to the minimum area necessary to develop the field in an efficient manner.*

- 8.2 Recognized exploration methods for mineral location, such as geophysical sampling and core drilling, will be permitted unless otherwise prohibited by law. Bulk sampling will not be allowed in areas closed to mineral entry or in anadromous streams.

*See response to Policy 8.1.*

- 8.3 All mining and mineral processing operations will be conducted in compliance with state and federal air and water quality regulations. Those that cannot do so will not be permitted to operate in the district.

*See response to Policy 8.1.*

- 8.4 Sand and gravel extraction from offshore areas, inter-tidal areas, estuaries, barrier islands, spits, beaches, riverbeds, lakes, wetlands, and floodplains, will be permitted only where it is determined that:
- there will be no significant adverse impact on fish, fish habitat, or fish harvest;
  - the material is needed for a significant public purpose; and
  - no feasible and prudent alternative upland site exists.

*Offshore areas are not included in the proposed Bristol Bay exploration license area. See response to Policy 8.1.*

- 8.5 Sand and gravel extraction in or adjacent to fish habitat will utilize such measures as levees, berms, and settling ponds in order to avoid adverse impacts to fish and fish habitat. Reclamation and/or rehabilitation measures will be required in order to minimize stream bank erosion and the sedimentation of fish habitat.

*See response to Policy 8.1.*

- 8.6 Sand and gravel extraction will be consolidated where feasible and prudent.

*See response to Policy 8.1.*

- 8.7 Mining for locatable minerals in or adjacent to fish habitat will utilize such measures as levees, berms, and settling ponds in order to avoid adverse impacts to fish and fish habitat. Reclamation and/or rehabilitation measures will be required in order to minimize stream bank erosion and the sedimentation of fish habitat.

*See response to Policy 8.1.*

- 8.8 Mining for locatable minerals in offshore areas will be conducted in a manner so as to avoid:
- obstructing commercial fishing activities;
  - obstructing navigation; and
  - adverse impacts to critical fish and wildlife habitat and the populations utilizing such habitat.

Dredge spoils will be redeposited in the areas disturbed by dredging unless it is determined that substantial public benefits would be derived from an alternative disposal method. Mining and mineral processing operations that are incompatible with the use of adjacent uplands will not be allowed.

*See response to Policy 8.1.*

*Licensees will be required to comply with these Mining Policies in order for their activities to be consistent with the ACMP and the BBCRSA CMP. Licensee Advisory 1 supports these policies.*

## Subsistence

Policy 9.1 replaces the existing ACMP standard of regulation 6 AAC 80.120(d).

- 9.1 Traditional subsistence activities are recognized as an extremely important use of the district's natural resources. Subsistence use areas are generally depicted on Map 2 (Volume 1). Maintenance of subsistence use will be given the highest priority when approving proposed land uses in these areas. Before a potentially conflicting activity may be authorized, an analysis of the possible adverse impacts upon subsistence use must be conducted and appropriate safeguards to assure subsistence usage must be provided.

*Exploration licensing does not authorize any activity, nor is any proposed at this time. This policy will be applied at the plan of operations permit phase during a future ACMP review and may be attached as a stipulation to the permit. Mitigation Measure 15 specifically supports this policy. Licensees will be required to comply with this Subsistence Policy in order for their activities to be consistent with the ACMP and the BBCRSACMP. All proposed Mitigation Measures support this policy.*

## Habitats

Policies 10.1 through 10.9 supplement the existing ACMP standards of regulation 6 AAC 80.130 which remains in effect.

- 10.1 Maintenance and enhancement of fisheries will be given the highest priority when evaluating projects which may impact fish spawning, migration, rearing, and over wintering areas. Shorelines that have banks, beaches, and beds critical to fish populations will be maintained in a productive natural condition.

*Exploration licensing does not authorize any activity, nor is any proposed at this time. This policy will be applied at the plan of operations permit phase during a future ACMP review and may be attached as a stipulation to the permit. Mitigation Measures 2 - 14, 16 - 25, and all but Licensee Advisory 2 attached to this proposed Bristol Bay exploration license support fish and wildlife habitat policies.*

- 10.2 Enhancement is an acceptable fish and wildlife management practice where it has been determined to be scientifically sound and where public review shows it to be in the public interest. Maintaining the genetic integrity of wild and indigenous species will be given high priority before approving an enhancement project. All fisheries enhancement and related activities will only use local, indigenous stocks.

*See response to Policy 10.1. This policy will be applied at the plan of operations permit phase during a future ACMP review and may be attached as a stipulation to the permit.*

- 10.3 Except for public water supply and domestic use, the maintenance of fish stocks is the highest priority water use in the district. Therefore, an appropriation of water that would cause the instream flow to fall below the amount determined necessary to protect fish and wildlife habitat and production will not be allowed.



*See response to Policy 10.1. This policy will be applied at the plan of operations permit phase during a future ACMP review and may be attached as a stipulation to the permit. Mitigation Measures 6 - 8 address year-round protection of fish habitat.*

10.4 Water intake pipes used to remove water from fish-bearing waters will require that the intake be surrounded by a screened enclosure so as to prevent fish entrainment and impingement. Pipes and screening will be designed, constructed, and maintained so that the maximum water velocity at the surface of the screen enclosure is not greater than 0.1 foot per second. Screen mesh size will not exceed 0.04 inch unless another size has been approved by the Alaska Department of Fish and Game. Other technology and techniques which can be demonstrated to prevent the entrainment and impingement of fish may also be utilized.

*See response to Policy 10.3. Mitigation Measure 8 specifically addresses intake pipes. If use of intake pipes is proposed during the required ACMP review, this policy may be attached to the appropriate permit as a stipulation.*

10.5 Projects and activities in wetlands that are hydrologically important to fish will provide for the maintenance and non-degradation of these areas.

*See response to Policy 10.1. Generally, Mitigation Measures prohibit the siting of facilities in wetlands, waterbodies and the riparian zone.*

10.6 Channelization, diversion, or damming that would alter the natural hydrological conditions and have a significant adverse impact on critical waterfowl habitat will be avoided.

*This policy is supported by existing law. Mitigation Measure 3 and Licensee Advisories 3 and 4 also support this policy.*

10.7 Public lands designated critical waterfowl habitat will be retained in public ownership. This policy does not apply to land exchanges authorized under the Alaska National Interest Lands Conservation Act (ANILCA).

*Exploration licensing authorizes no activity and none is proposed for review at this time. However, Mitigation Measures 4, 13 and 14 support this policy.*

10.8 In recognition of the fact that large scale domestic livestock grazing would compete with wildlife populations, the use of public land for large scale grazing operations is prohibited.

*This policy is not applicable to exploration licensing or oil and gas activities in general.*

10.9 Uses and activities in the coastal area which will not conform to policies 10.3, 10.5, 10.6, and 10.8, may be allowed by the district or appropriate State agency if the following are established:

- a. there is a significant public need for the proposed use or activity;
- b. there is no feasible prudent alternative to meet the public need for the proposed use or activity which would conform to policies 10.3, 10.5, 10.6, and 10.8; and
- c. all feasible and prudent steps to maximize conformance with policies 10.3, 10.5, 10.6, and 10.8 will be taken.

The provisions of this policy specifically do not apply to policies 10.1, 10.2, 10.4, and 10.7.

*Exploration licensing authorizes no activity and none is proposed for review at this time. An activity can only be analyzed for its consistency with this policy when it is proposed at the plan of operations permit or geophysical exploration permit phase. At that time, it will be review for consistency with the ACMP, BBCRSA Policies including 10.9, Mitigation Measures attached to the license, and any other applicable law, local ordinance, and ADNDR Area Plan.*

## Air, Land and Water Quality

Policies 11.1 and 11.2 supplement the existing ACMP standards of regulation 6 AAC 80.140 which remains in effect.

11.1 The quality of fish-bearing waters must, at a minimum, be maintained at a level which will ensure the continued health and propagation of fish populations. A use or activity which cannot be conducted in such a manner will not be permitted.

*Exploration licensing authorizes no activity and none is proposed for review at this time. This policy will be applied at the plan of operations permit phase, which undergoes a separate ACMP review. Mitigation Measures 3 and 4, 16 - 24, and Licensee Advisories 1, 3, 4, and 6 - 8 support this policy.*

11.2 No petroleum products or toxic substances will be stored in such form or manner that they could contaminate waterbodies, including groundwater. Measures to prevent and cleanup spills of petroleum or toxic materials will be incorporated into the design and operation of all storage facilities.

*See response to Policy 11.1.*

*Licensees will be required to comply with applicable Air, Land and Water Policies in order for their activities to be consistent with the ACMP and the BBCRSACMP. Mitigation Measures 3 and 4, 16 - 24, and Licensee Advisories 1, 3, 4, and 6 - 8 support these policies.*

## Historic and Archaeological Sites

Policies 12.1 and 12.2 supplement the existing ACMP standards of regulation 6 AAC 80.150 which remains in effect.

12.1 The historic and archaeological value of an area proposed for development will be evaluated early in a project's planning. If this evaluation indicates that the site contains important historic or archaeological values, archaeologists and qualified members of other relevant disciplines will have an opportunity to study a site prior to construction. Local input must be sought in the evaluation and study phase.

*Exploration licensing authorizes no activity and none is proposed for review at this time. This policy will be applied at the plan of operations permit phase, which undergoes a separate ACMP review. Mitigation Measures 27, 28, and 29 support this policy.*

12.2 If a site is determined to be of exceptional historic or archaeological value, it will be protected for future study and enjoyment and considered for placement on the Natural Register of Historic Places or designation as a State Historic Site.

*See response to Policy 12.1.*

*Licensees will be required to comply with these Historic and Archaeological Sites Policies in order for their activities to be consistent with the ACMP and the BBCRSACMP. Mitigation Measures 27, 28, and 29 support these policies.*

# **Appendix A Mitigation Measures and Licensee Advisories**

## **A. Mitigation Measures**

### **Facilities and Operations**

1. A plan of operations must describe the licensee's efforts to minimize impacts on residential, commercial, and recreational areas. At the time of application, licensees must submit a copy of the proposed plan of operations to all surface owners whose property will be entered.
2. Facilities must be designed and operated to minimize sight and sound impacts in areas of high residential, commercial, recreational, and subsistence use and important wildlife habitat. Methods may include providing natural buffers and screening to conceal facilities, sound insulation of facilities, or by using alternative means approved by the Director, in consultation with OHMP.
3. The siting of permanent facilities, other than docks, or road, utility, pipeline crossings and facilities required for offshore exploration and production will be prohibited within ½-mile of the banks of the Wood and Nushagak rivers. In addition the siting of temporary and permanent facilities, other than docks, or road, utility, and pipeline crossings will be prohibited within 500 feet of all fish bearing waterbodies. Facilities may be sited within these buffers if the licensee demonstrates to the satisfaction of the Director, in consultation with OHMP, that site locations outside these buffers are not feasible or prudent or that a location inside the buffer is environmentally preferred. Road, utility, and pipeline crossings must be aligned perpendicular or near perpendicular to watercourses.
4. Impacts to important wetlands must be minimized to the satisfaction of the Director, in consultation with OHMP and ADEC. The Director will consider whether facilities are sited in the least sensitive areas.
5. Pipelines must utilize existing transportation corridors and be buried where conditions permit. In areas with above ground placement, they must be designed, sited, and constructed to allow for the free movement of wildlife. Pipeline gravel pads must be designed to facilitate the containment and cleanup of spilled fluids. Pipelines must be designed and constructed to assure integrity against climatic conditions and geophysical hazards.

### **Fish and Wildlife Habitat**

#### **Fishbearing Streams**

6. Detonation of explosives within or in close proximity to fish bearing waters must not produce instantaneous pressure changes that exceed 2.7 pounds per square inch in the swim bladder of a fish. Detonation of explosives within or in close proximity to a fish spawning bed during the early stages of egg incubation must not produce a peak particle velocity greater than 0.5 inches per second. Blasting criteria have been developed by ADF&G and are available upon request. The location of known fish bearing waters within the project area can be obtained from the OHMP.
7. Compaction or removal of snow cover overlying fish bearing waterbodies is prohibited except for approved crossings. If ice thickness is not sufficient to facilitate a crossing, ice or snow bridges may be required.

8. Water intake pipes used to remove water from fish bearing waterbodies must be surrounded by a screened enclosure to prevent fish entrainment and impingement. Screen mesh size shall be no greater than 0.1 inches unless another size has been approved by OHMP. The maximum water velocity at the surface of the screen enclosure may be no greater than 0.2 feet per second.

### **Bear, Moose, and Caribou Habitats**

9. Before commencement of any activities, licensees shall consult data provided by the ADF&G identifying the locations of bear den sites that are occupied in the season of the proposed activities. Exploration and development activities started between October 15 and April 31 may not be conducted within ½-mile of occupied brown bear dens, unless alternative mitigation measures are approved by ADF&G. A licensee who encounters an occupied bear den not previously identified in the data provided by ADF&G must report it to the Division of Wildlife Conservation, ADF&G, within 24 hours. Mobile activities shall avoid such discovered occupied dens by ½-mile unless alternative mitigation measures are approved by the Director with concurrence from ADF&G. Non-mobile facilities will not be required to be relocated.
10. The Director, in consultation with OHMP, may impose seasonal restrictions on activities located in important moose and caribou calving and wintering areas during the plan of operations approval stage.

### **Bald Eagle, Trumpeter Swan, and Important Waterfowl Habitats**

11. Permanent facilities may be prohibited within ¼-mile and will be prohibited within 330 feet of bald eagle nests, active or inactive. Temporary activities within 330 feet of nesting sites may be allowed between September 1 and March 31 if they will not alter bald eagle habitat. Surface entry will be prohibited within 330 feet of active nests between April 1 and August 31. Maps identifying documented nest sites will be made available by ADF&G upon request.
12. If the licensee discovers a previously unreported active or inactive bald eagle nest, the licensee must report the nest location to ADF&G as soon as possible. Licensees are advised that activities likely to disturb nesting eagles are subject to the provisions of the Bald Eagle Act of 1940, as amended.
13. Surface entry will be prohibited within ¼-mile of trumpeter swan nesting sites from April 1 through August 31. The siting of permanent facilities, including roads, material sites, storage areas, powerlines, and above-ground pipelines are prohibited within ¼-mile of known nesting sites. ADF&G will identify trumpeter swan nesting sites at the request of the licensee.
14. The Director, in consultation with OHMP, may impose seasonal restrictions on activities located in important waterfowl habitat during the plan of operations approval stage.

## **Subsistence**

15. License-related use will be restricted when the Commissioner determines it is necessary to prevent unreasonable conflicts with local subsistence activities. In enforcing this term DO&G, during review of plans of operation or development, will work with other agencies and the public to ensure that potential conflicts are identified and avoided. In order to avoid conflicts with subsistence activities, restrictions may include alternative site selection, requiring directional drilling, seasonal drilling restrictions, and other technologies deemed appropriate by the Commissioner.

## **Fuel and Hazardous Substances**

16. Secondary containment shall be provided for the storage of fuel or hazardous substances.

17. Containers with a total storage capacity of greater than 55 gallons which contain fuel or hazardous substances shall not be stored within 100 feet of a waterbody.
18. During equipment storage or maintenance, the site shall be protected from leaking or dripping fuel and hazardous substances by the placement of drip pans or other surface liners designed to catch and hold fluids under the equipment, or by creating an area for storage or maintenance using an impermeable liner or other suitable containment mechanism.
19. During fuel or hazardous substance transfer, secondary containment or a surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends. Appropriate spill response equipment, sufficient to respond to a spill of up to five gallons, must be on hand during any transfer or handling of fuel or hazardous substances. Transfer operations shall be attended by trained personnel at all times.
20. Vehicle refueling shall not occur within the annual floodplain. This measure does not apply to water-borne vessels.
21. All independent fuel and hazardous substance containers shall be marked with the contents and the licensee's name using paint or a permanent label.

## **Waste Disposal**

22. Waste from operations must be reduced, reused, or recycled to the maximum extent practicable. Garbage and domestic combustibles must be incinerated whenever possible or disposed of at an approved site in accordance with 18 AAC 60.
23. New solid waste disposal sites, other than for drilling waste, will not be approved or located on state property during the exploration phase of license activities. Disposal sites may be provided for drilling waste if the facility complies with 18 AAC 60.
24. Drilling mud and cuttings cannot be discharged into lakes, streams, rivers, or important wetlands. On pad temporary cuttings storage will be allowed. Impermeable lining and diking, or equivalent measures, will be required for reserve pits. Injection of non-hazardous oilfield wastes is regulated by AOGCC through its Underground Injection Control (UIC) Program for oil and gas wells.

## **Access**

25. Exploration activities must utilize existing road systems, ice roads, air or boat service, or vehicles that do not cause significant damage to the ground surface or vegetation. Construction of temporary roads may be allowed. Construction of permanent roads will be prohibited during the exploration phase.
26. Public access to, or use of, the licensed area may not be restricted except within the immediate vicinity of drill sites, buildings, and other related facilities. Areas of restricted access must be identified in the plan of operations.

## **Prehistoric, Historic, and Archeological Sites**

27. Prior to the construction or placement of any structure, road, or facility resulting from exploration, development, or production activities, the licensee must conduct an inventory of prehistoric, historic, and archeological sites within the area affected by an activity. The inventory must include consideration of literature provided by nearby communities, Native organizations, and local residents; documentation of oral

history regarding prehistoric and historic uses of such sites; evidence of consultation with the Alaska Heritage Resources Survey and the National Register of Historic Places; and site surveys. The inventory must also include a detailed analysis of the effects that might result from the activity.

28. The inventory of prehistoric, historic, and archeological sites must be submitted to the Director and SHPO for review and comment. If a prehistoric, historic, or archeological site or area could be adversely affected by a license activity, the Director, after consultation with SHPO, will direct the licensee as to the course of action to take to avoid or minimize adverse effects.
29. If a site, structure, or object of prehistoric, historic, or archaeological significance is discovered during license operations, the licensee must report the discovery to the Director as soon as possible. The licensee must make reasonable efforts to preserve and protect the discovered site, structure, or object from damage until the Director, after consultation with the SHPO, has directed the licensee as to the course of action to take for its preservation.

### **Local Hire, Communication, and Training**

30. To the extent they are available and qualified, licensees are encouraged to employ local and Alaska residents and contractors for work performed on the licensed area. Licensees shall submit, as part of the plan of operations, a proposal detailing the means by which the licensee will comply with the measure. The proposal must include a description of the operator's plans for partnering with local communities to recruit and hire local and Alaska residents and contractors. The licensee is encouraged, in formulating this proposal, to coordinate with employment services offered by the State of Alaska and local communities and to recruit employees from local communities.
31. A plan of operations application must describe the licensee's past and prospective efforts to communicate with local communities and interested local community groups.
32. A plan of operations application must include a training program for all personnel including contractors and subcontractors. The program must be designed to inform each person working on the project of environmental, social, and cultural concerns that relate to that person's job. The program must use methods to ensure that personnel understand and use techniques necessary to preserve geological, archeological, and biological resources. In addition, the program must be designed to help personnel increase their sensitivity and understanding of community values, customs, and lifestyles in areas where they will be operating.

## Definitions

33. In this document

- a. "Facilities" means any structure, equipment, or improvement to the surface, whether temporary or permanent, including, but not limited to, roads, pads, pits, pipelines, power lines, generators, utilities, airstrips, wells, compressors, drill rigs, camps and buildings;
- b. "Feasible and prudent" means consistent with sound engineering practice and not causing environmental, social, or economic costs that outweigh the public benefit to be derived from compliance with the standard;
- c. "Important wetlands" means those wetlands that are of high value to fish, waterfowl, and shorebirds because of their unique characteristics or scarcity in the region or that have been determined to function at a high level using the hydrogeomorphic approach;
- d. "Minimize" means to reduce adverse impacts to the smallest amount, extent, duration, size, or degree reasonable in light of the environmental, social, or economic costs of further reduction;
- e. "Plan of operations" means a license Plan of operations under 11 AAC 83.158 and a unit Plan of operations under 11 AAC 83.346;
- f. "Secondary containment" means an impermeable diked area or portable impermeable containment structure capable of containing 110 percent of the volume of the largest independent container plus 12 inches of freeboard. Double walled tanks do not qualify as Secondary Containment unless an exception is granted for a particular tank.

## B. Licensee Advisories

Licensee Advisories are intended to alert licensees to possible additional restrictions that may be imposed at the permitting stage of a proposed project or activity in certain leasehold areas, especially where entities other than DO&G have permitting authority.

1. Gravel mining within an active floodplain may be prohibited. Upland sites will be restricted to the minimum area necessary to develop the field in an efficient manner.
2. Facilities and operations shall not be located so as to block access to or along navigable and public waters (AS 38.05.127).

### DNR/OHMP

3. Under the provisions of Title 41 of the Alaska Statutes, the measures listed below may be imposed by OHMP below the ordinary high water mark to protect designated anadromous fish-bearing streams and to ensure the free and efficient passage of fish in all fish-bearing waterbodies. Specific information on the location of anadromous waterbodies in and near the area may be obtained from OHMP.
  - a. Alteration of riverbanks may be prohibited.
  - b. The operation of equipment, excluding boats, in open water areas of rivers and streams may be prohibited.
  - c. Bridges or non-bottom founded structures may be required for crossing fish spawning and important rearing habitats.



- d. Culverts or other stream crossing structures must be designed, installed, and maintained to provide free and efficient passage of fish.
- 4. Removal of water from fish-bearing waterbodies requires prior written approval by DMLW and OHMP.
- 5. For projects in close proximity to areas frequented by bears, licensees are encouraged to prepare and implement a human-bear interaction plan designed to minimize conflicts between bears and humans. The plan should include measures to:
  - a. minimize attraction of bears to drill sites;
  - b. organize layout of buildings and work areas to Minimize interactions between humans and bears;
  - c. warn personnel of bears near or on drill sites and the proper procedures to take;
  - d. if authorized, deter bears from the drill site;
  - e. provide contingencies in the event bears do not leave the site;
  - f. discuss proper storage and disposal of materials that may be toxic to bears; and
  - g. provide a systematic record of bears on site and in the immediate area.

## **ADEC**

- 6. Pursuant to state regulation (18 AAC 75 administered by ADEC), licensees are required to have an approved oil discharge prevention and contingency plan (C-Plan) prior to commencing operations. The plan must include a response action plan to describe how a spill response would occur, a prevention plan to describe the spill prevention measures taken at the facility, and supplemental information to provide background and verification information.
- 7. Unless authorized by an ADEC permit, surface discharge of reserve pit fluids and produced waters is prohibited.
- 8. Unless authorized by NPDES or state permits, disposal of wastewater into freshwater bodies is prohibited.

STATE OF ALASKA  
DEPARTMENT OF NATURAL RESOURCES

Bristol Bay Exploration License No. 1

THIS EXPLORATION LICENSE is issued by the State of Alaska Department of Natural Resources ("the state" or "the department") to

("the licensee") whether one or more, whose address for purposes of notification is as shown in Paragraph 19.

In consideration of the nonrefundable Oil and Gas Exploration License Fee, work commitment, and performance bond, and subject to the provisions of this exploration license ("license"), including the schedules attached hereto, and by reference, incorporated into this license, the state and the licensee agree as follows:

1. GRANT. (a) Subject to the provisions contained in this license, the state grants to the licensee the exclusive right to explore for Oil and Gas and Associated Substances on the state lands described in Schedule 1 ("licensed land"), unless this license is terminated in whole or part under the provisions of this license or applicable statutes and regulations.

(b) Upon fulfillment of the work commitment contained in this license and subject to the provisions contained in this license, the state grants to the licensee the option to convert this license, for all or part of the licensed land, into one or more oil and gas leases. The option to convert the licensed land into oil and gas leases shall not apply to lands that have been relinquished, surrendered, deleted or removed under the provisions of this license or applicable statutes and regulations.

(c) If the state's ownership interest in the Oil, Gas, and Associated Substances in the licensed land is less than an entire and undivided interest, the grant under this license is effective only as to the state's interest in that Oil, Gas, and Associated Substances.

(d) The state makes no representations or warranties, express or implied, as to title, or access to, or quiet enjoyment of, the licensed land. The state is not liable to the licensee for any deficiency in title to the licensed land, nor is the licensee or any successor in interest to the licensee entitled to any refund due to deficiency in title for work commitments or other expenditures made under this license.

2. RESERVED RIGHTS. (a) The state, for itself and others, reserves all rights not expressly granted to the licensee. These reserved rights include, but are not limited to:

(1) the right to dispose of to others the surface of the licensed land subject to the license, and the right to authorize others by grant, lease, or permit, subject to the license and under such conditions as will prevent unnecessary or unreasonable interference with the rights and operations under the license, to enter upon and use the licensed land;

(2) the right to explore for Oil or Gas by geological or geophysical means including the drilling of shallow core holes or stratigraphic tests to a depth of not more than 1,000 feet;

(3) the right to explore for, develop, and remove natural resources other than Oil, Gas, and Associated Substances on or from the licensed land;

(4) the right to non-exclusive easements and rights-of-way for any lawful purpose, including shafts and tunnels necessary or appropriate for working of the licensed land or other land for natural resources other than Oil, Gas, or Associated Substances;

(5) the right to well sites and well bores of wells drilled from or through the licensed land to explore for or produce Oil, Gas, and Associated Substances in and from other land; and

(6) the right to undertake any other purpose authorized by law and not inconsistent with the rights under the license.

(b) Reserved rights may be exercised by the state, or by any person or entity acting under authority of the state, in any manner that does not unreasonably interfere with or endanger the licensee's operations under this license.

3. TERM. This license is issued for a term of \_\_\_\_ years from the Effective Date.
4. FEE. On or before the Effective Date of this license, the licensee shall pay the state a nonrefundable Oil and Gas Exploration License Fee of \$1 for each acre of land or fraction of each acre that is subject to this license.
5. WORK COMMITMENT. This license is conditioned upon the performance of the work commitment stated in Schedule 2.
6. GEOLOGIC AND GEOPHYSICAL DATA. (a) On or before each Anniversary Date of the Effective Date of this license, the licensee shall submit to the department all geologic and geophysical data obtained under this license.  
(b) The commissioner will hold confidential all geologic and geophysical data submitted by the licensee until the land from which the data were acquired is no longer subject to this license, and provided that the land has not been converted to one or more oil and gas leases.
7. BONDING. (a) On or before the Effective Date of this license, the licensee must post a performance bond or other security, satisfactory to the commissioner of the Alaska Department of Natural Resources ("commissioner"), in the amount described in Schedule 2, and  
(1) the bond or other security must be renewed annually;  
(2) the annual bond or other security shall be calculated as the entire work commitment expressed in dollars, less the cumulative direct exploration expenditures of the licensee as of the Anniversary Date of the most recent year, divided by the number of years remaining in the term of the license; and  
(3) this license is subject to annual review and revocation if the commissioner determines that the licensee has failed to provide or maintain in effect the bond or security as described in Schedule 2.  
(b) If this license is surrendered or terminated before its full term has run, or not converted to a lease under the provisions of AS 38.05.134, the entire bond shall forfeit to the state.
8. RELINQUISHMENT. (a) The licensee shall be required to relinquish, or the commissioner may remove, delete, or require the relinquishment of lands under this exploration license if the conditions of AS 38.05.132 and 11 AAC 82.954 are not met.  
(b) On or before the fourth anniversary of the Effective Date of the issuance of this license and on or before every Anniversary Date thereafter, the licensee shall deliver to the department a description of:  
(1) the actual work completed, total cumulative direct exploration expenditures, and the percentage of the original work commitment completed; and  
(2) if the work completed exceeds 25 percent but is less than 50 percent, a listing of lands selected for relinquishment with a map at a scale of 1:250,000 indicating lands to be relinquished.  
(c) To the extent possible, relinquished lands must be comprised of full sections and described by section, township, range and meridian, or by other legal subdivision.  
(d) After relinquishment, retained lands must be reasonably compact and contiguous.  
(e) If on or before the fourth anniversary of the Effective Date of this license, and on or before each successive anniversary, the licensee fails to deliver to the department the information required in (b) of this section the commissioner will designate lands to be relinquished and notify the licensee in writing.  
(f) Relinquishment of lands under this section does not affect the work commitment stated in Schedule 2.
9. FORCE MAJEURE. (a) If by the fourth anniversary of this license, the state determines that the licensee has been prevented by Force Majeure from performing an act that would maintain this license, the Effective Date of this license shall be extended by adding the time lost as result of the Force Majeure.  
(b) If Force Majeure occurs after the fourth anniversary and before the expiration of the term of this license, the term of this license shall be extended by adding the period of time lost as a result of the Force Majeure.
10. AUDIT. The commissioner will, at the commissioner's discretion, audit expenditures as set out in 11 AAC 82.960. The licensee shall keep and have in its possession books and records showing all expenditures regarding the licensee's direct exploration expenditures, reports, data, or other information relevant to the drilling of an oil and gas exploration well or the gathering of geologic or geophysical data,

whether or not that information is confidential. The licensee shall permit the state or its agents to examine these books and records at all reasonable times. Upon request by the state, the licensee's books and records shall be made available to the state at the state office designated by the state. These books and records must employ methods and techniques that will ensure the most accurate figures reasonably available. The licensee shall use generally accepted accounting procedures consistently applied.

11. PLAN OF OPERATIONS. (a) Before operations may be undertaken on the licensed land, the licensee shall comply with the applicable statutes and regulations in effect on the date the proposed activity is scheduled to commence. Each operation conducted under this license is subject to the provisions of 11 AAC 83.158 and 11 AAC 96.010 – 11 AAC 96.140.

(b) No operations may be undertaken until a plan of operations has been approved by the state. All of the licensee's operations must be in conformance with the approved plan of operations. The state's approval does not relieve the licensee of its obligation to obtain approvals and permits required by other governmental agencies having regulatory authority over those operations.

(c) Before undertaking operations on or in the licensed land, the licensee shall provide for full payment of all damages sustained by the owner of the surface estate by reason of entering on the land. The licensee may satisfy this requirement by obtaining either written consent of the surface owner, or posting a surety bond determined by the director to be sufficient to secure the owner for damages. This requirement applies to all privately-owned surface areas regardless of whether the rights in the surface estate devolve from a state or federal conveyance.

(d) If the licensee undertakes any operations on the licensed land without having first complied with subparagraph (c) of this section, the director may issue a verbal or written Notice of Cessation notifying the licensee to cease all operations on or in the licensed area within 24 hours. Upon issuing a Notice of Cessation, the director shall schedule a hearing to determine the amount of surety bond the licensee will be required to post before recommencing operations on the licensed land. If the licensee fails to cease operations as directed, the state may immediately and without further notice revoke the license pending a hearing and a bond determination.

(e) For an exploratory drilling operation, a licensee shall notify and provide an opportunity for a representative of the department to

- (1) be on-site for drilling, coring, and testing; and
- (2) examine the core after drilling.

12. INSPECTION. The licensee shall keep open at all reasonable times, for inspection by any duly authorized representative of the State of Alaska, the licensed area, all wells, improvements, machinery, and fixtures on the licensed area, and all reports and records relative to operations and surveys or investigations on or with regard to the licensed area or under this license. Upon request, the licensee shall furnish the State of Alaska with copies of and extracts from any such reports and records.

13. ASSIGNMENT. This license, or an interest in this license, may, with the approval of the state, be assigned or otherwise transferred to any person or persons qualified to hold a license. No assignment, sublease, or other transfer of an interest in this license is binding upon the state unless approved by the commissioner. The licensee shall remain liable for all obligations under this license accruing prior to the approval by the commissioner of any assignment, or other transfer of an interest in this license. All provisions of this license will extend to and be binding upon the heirs, administrators, successors, and assigns of the state and the licensee. Applications for approval of an assignment, or other transfer must comply with all applicable regulations and must be filed within 90 days after the date of final execution of the instrument of transfer. The state will approve a transfer of an undivided interest in this license unless the transfer would adversely affect the interests of the state or the application does not comply with applicable regulations. The state will disapprove a transfer of a divided interest in this license if the transfer covers only a portion of the license unless the licensee demonstrates that the proposed transfer of a divided interest is reasonably necessary to accomplish exploration of the licensed land. The state will make a written finding stating the reasons for disapproval of a transfer of a divided interest. Where an assignment or other transfer is made of all or a part of the licensee's interest in a portion of the licensed land, this license may, at the option of the state or upon request of the transferee and with the approval of the state, be severed, and a separate and distinct license will be issued to the transferee having the same Effective Date and terms as this license.

14. SURRENDER. The licensee may, at any time, file with the state a written surrender of rights under this license. Upon the Effective Date of the surrender, the licensee shall forfeit to the state the security bond required under Paragraph 7 of this license.

15. TERMINATION (a) The commissioner will, in the commissioner's discretion, terminate this license whenever the licensee fails to comply with any of its provisions, applicable statutes, regulations, or stipulations and the failure continues for a period of 60 days following written notice by the commissioner to the licensee of failure to comply. Upon termination, the licensee shall forfeit to the state the security bond required under paragraph 7 of this license.

(b) If the licensee has not completed at least 25 percent of the licensee's total specified work commitment, as measured by the licensee's direct exploration expenditures, this license will automatically terminate on the fourth anniversary of the Effective Date of the issuance of the license.

16. RIGHTS UPON TERMINATION. Upon the surrender or termination as to all or any portion of the licensed land, the licensee will be directed in writing by the state and will have the right at any time within a period of one year after the termination, or any extension of that period as may be granted by the state, to remove from the licensed land or portion of the licensed land all machinery, equipment, tools, and materials. Upon the expiration of that period or extension of that period and at the option of the state, any machinery, equipment, tools, and materials that the licensee has not removed from the licensed land or portion of the licensed land become the property of the state or may be removed by the state at the licensee's expense. At the option of the state, all improvements such as roads, pads, and wells must either be abandoned and the sites rehabilitated by the licensee to the satisfaction of the state, or be left intact and the licensee absolved of all further responsibility as to their maintenance, repair, and eventual abandonment and rehabilitation. Subject to the above conditions, the licensee shall deliver the licensed land or those portions of the licensed land in good condition.

17. DAMAGES AND INDEMNIFICATION. (a) The licensee shall indemnify the state for, and hold it harmless from, any claim, including claims for loss or damage to property or injury to any person caused by or resulting from any act or omission committed under this license by or on behalf of the licensee. The licensee is not responsible to the state under this subparagraph for any loss, damage, or injury caused by or resulting from the sole negligence of the state.

(b) The licensee expressly waives any defense to an action for breach of a provision of this license or for damages resulting from an oil spill, well blow-out, or other harm to the environment that is based on an act or omission committed by an independent contractor in the licensee's employ. The licensee expressly agrees to assume responsibility for all actions of its independent contractors.

18. AUTHORIZED REPRESENTATIVES. The Director of the Division of Oil and Gas, Department of Natural Resources, State of Alaska, and the person executing this license on behalf of the licensee shall be authorized representatives for their respective principals for the purposes of administering this license. The state or the licensee may change the designation of its authorized representative or the address to which notices to that representative are to be sent by a notice given in accordance with Paragraph 19 below. When activities pursuant to a plan of operations are underway, the licensee shall also designate, pursuant to a notice under Paragraph 19 below, by name, job title, and address, an agent who will be present in the state during all license activities.

19. NOTICES; PROTEST. (a) Any notices required or permitted under this license must be by electronic media producing a permanent record or in writing and must be given personally or by registered or certified mail, return receipt requested, addressed as follows:

TO THE STATE:

DIRECTOR, DIVISION OF OIL AND GAS  
DEPARTMENT OF NATURAL RESOURCES  
550 WEST 7<sup>TH</sup> AVENUE, SUITE 800  
ANCHORAGE, ALASKA 99501-3560

TO THE LICENSEE:

(b) Any notice given under this paragraph will be effective when delivered to the above authorized representative.

20. APPEALS. The licensee shall appeal decisions of the commissioner related to this license as provided by 11 AAC 82.963.

21. STATUTES AND REGULATIONS. This license is subject to all applicable state and federal statutes and regulations in effect on the Effective Date of this license, and insofar as is constitutionally permissible, to all statutes and regulations placed in effect after the Effective Date of this license. A reference to a statute or regulation in this license includes any future change in that statute or regulation whether by amendment, repeal and replacement, or other means. This license does not limit the power of the State of Alaska or the United States of America to enact and enforce legislation or to promulgate and enforce regulations affecting, directly or indirectly, the activities of the licensee or its agents in connection with this license or the value of the interest held under this license. In case of conflicting provisions, statutes and regulations take precedence over this license.

22. INTERPRETATION. This license is to be interpreted in accordance with the rules applicable to the interpretation of contracts made in the State of Alaska. The paragraph headings are not part of this license and are inserted only for convenience. The state and the licensee expressly agree that the law of the State of Alaska will apply in any judicial proceeding affecting this license.

23. WAIVER OF CONDITIONS. The state reserves the right to waive any breach of a provision of this license, but any such waiver extends only to the particular breach so waived and does not limit the rights of the state with respect to any future breach; nor will the waiver of a particular breach prevent cancellation of this license for any other cause or for the same cause occurring at another time. Notwithstanding the foregoing, the state will not be deemed to have waived a provision of this license unless it does so in writing.

24. SEVERABILITY. If it is finally determined in any judicial proceeding that any provision of this license is invalid, the state and the licensee may jointly agree by a written amendment to this license that, in consideration of the provisions in that written amendment, the invalid portion will be treated as severed from this license and that the remainder of this license, as amended, will remain in effect.

25. CONDITIONAL LICENSE. If all or a part of the licensed land is land that has been selected by the state under laws of the United States granting lands to the state, but the land has not been patented to the state by the United States, then this license is conditional until the patent becomes effective.

26. NONDISCRIMINATION. The licensee and the licensee's contractors and subcontractors may not discriminate against any employee or applicant because of race, religion, marital status, change in marital status, pregnancy, parenthood, physical handicap, color, sex, age, or national origin as set out in AS 18.80.220. The licensee and its contractors and subcontractors must, on beginning any operations under this license, post in a conspicuous place notices setting out this nondiscrimination provision.

27. DEFINITIONS. To the extent that the words and phrases used in this license are defined in 11 AAC 82.990, those definitions shall apply. With respect to all other words and phrases used in this license, they are to be interpreted where possible in the manner required in respect to the interpretation of statutes by AS. 01.10.040. However, the following words have the following meanings unless the context unavoidably requires otherwise.

(1) "Anniversary Date" means the date in each successive calendar year following the Effective Date, that is the same as the Effective Date.

(2) "Associated Substances" means all substances except helium produced as an incident of production of Oil or Gas by ordinary production methods and not defined in this license as Oil or Gas;

(3) "Effective Date" means the first day of the month following the date on which the exploration license or, if an extension is granted, the extension was signed on behalf of the state or, upon written request, on the first day of the month in which it was signed on behalf of the state.

(4) "Force Majeure" means war, riots, acts of God, unusually severe weather, or any other cause beyond the licensee's reasonable ability to foresee or control and includes operational failure of existing transportation facilities and delays caused by judicial decisions or lack of them.

(5) "Gas" means all natural gas (except helium gas) and all other hydrocarbons produced that are not defined in this license as Oil;

